



## BULLETIN OF THE ASSOCIATION FOR INDUSTRIAL ARCHAEOLOGY

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1. The object of the dig was to expose the foundations of the engine house at the pit, known to have housed a Newcomen-type steam engine in 1781 and to clear the pit top masonry lining, thereby revealing the entrance to the sough (or drainage adit). Clearance of vegetation and undergrowth on the site had been begun in the Summer of 1974 by Mr. G. Catterall of the N.W. Museum of Science and Industry working with Community Service volunteers, and a piston of the engine, which had been lying partly buried on the surface had also been removed to Manchester last year with the assistance of Cumbria County Council. Further work was now urgent as By-pass road works had begun in the vicinity of the site and there was the fear that it might be obliterated by dumping of contractor's materials. For the time being the site had been fenced off by the County Land Agent. Local tradition is that part of the engine was rolled down the shaft at a re-filling about 50 years ago, but since the topfill is 30 ft. thick it was not considered possible to test this without assistance from the N.C.B. should tests for site stability prove necessary, and the shaft have to be capped. Use of a metal detector, however, may reveal something.
2. The Dig was carried out by students of the John Dalton Faculty of Technology of Manchester Polytechnic under the direction of Mr. A. D. George, Department of General Studies who is Field Secretary of the Manchester Region Industrial Archaeology Society, at the suggestion of Cumbria County Council and the request of Prof. D. S. L. Cardwell of the Dept. of the History of Science and Technology, UMIST, who gave financial support. The work was also undertaken on behalf of the N.W. Museum of Science and Industry, Manchester, whose director Dr. R. L. Hills maintains a close watch on the site and is responsible for the custody of the exhibits. The results of the Dig were photographed by Mr. R. G. Manders, Assistant Director of the Museum, and recordings made by Radio Carlisle on the progress of the work. Dr. J. D. Marshall, Director of the Centre for N.W. Regional Studies, University of Lancaster and Joint Secretary of the Cumbrian Committee for Industrial Archaeology is also supporting the project.
3. The party left Manchester on the afternoon of Friday, 9th May, arriving at Bridgefoot about 4.30 p.m. and establishing camp at The Forge in accommodation kindly provided by the owner Mr. Wilson who also provided assistance with equipment and footwear and whose cheerful enthusiasm and advice is always welcome. A word of thanks too, to Mrs. Wilson who often provided very welcome refreshments.
4. The first task on the Friday evening was to introduce the party of nine students to the site, with the aid of an estate plan, make some trial soundings and explain the work to be done.

Saturday was damp and misty, but the rain held off until about 6.00 p.m. allowing a full day's digging. The party was divided into two groups—one to work in the pit shaft, the other on the foundations of the engine house. Picks and spades were used to remove sods, spoil and rubble and the existing spoil heaps to N. and S. of the shaft used for dumping. Digging and brushing-up operations continued on Sunday morning when part of the engine was located.

#### (a) The Top of the Pit Shaft

This was taken down to a depth of about 4-5 ft. revealing the masonry lining of dressed stonework about 2 ft. thick. The shaft is oval in shape as was the Lowther practice with winding being accomplished in the W. half and pumping in the 2 section divided by brattice boarding.

#### I.A. EXCAVATION IN CUMBRIA

Although Cumberland was one of the most heavily industrialised parts of Britain during the 18th century, the relative absence of industrial development in the region in the past 100 years suggests a high likelihood of relics of 18th century industry surviving there. David George, of the Manchester Region I.A. Society, has paid particular attention to surviving records of Newcomen engines used for draining the Cumberland mines. Sir James Lowther, owner of extensive coal-bearing lands around Whitehaven and Workington, was an early client of Thomas Newcomen. At Bridgefoot on the River Marron near Workington, Lowther constructed a wooden waggonway down the Derwent Valley to Workington, which served a number of pits on the land of the Curwen family, collectively known as Reel Fitz Colliery. Mr. J. Martin, the Workington representative on the Cumbrian Committee for I.A. has supplied information which suggests that parts of the Newcomen engine known to have been installed at Reel Fitz just prior to 1780 might still be found on the site. An exploratory 'dig' at Reel Fitz was held over the weekend 9-11 May 1975, and David George who directed operations has compiled the following report:-